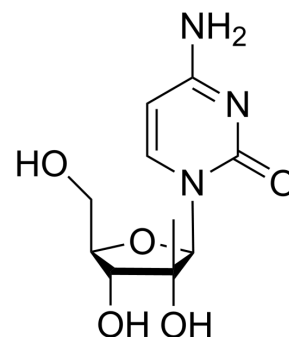


## NM107

Cat. No.:	HY-10468		
CAS No.:	20724-73-6		
Molecular Formula:	C <sub>10</sub> H <sub>15</sub> N <sub>3</sub> O <sub>5</sub>		
Molecular Weight:	257.24		
Target:	HCV		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (388.74 mM; Need ultrasonic)  
 H<sub>2</sub>O : ≥ 50 mg/mL (194.37 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.8874 mL	19.4371 mL	38.8742 mL
	5 mM	0.7775 mL	3.8874 mL	7.7748 mL
	10 mM	0.3887 mL	1.9437 mL	3.8874 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: PBS  
Solubility: 50 mg/mL (194.37 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (9.72 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (9.72 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (9.72 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

NM107 (2'-C-Methylcytidine) is an nucleoside inhibitor of the hepatitis C virus (HCV) NS5B polymerase, the EC<sub>50</sub> of NM107 in the wild-type replicon cells is 1.85 μM<sup>[1][2]</sup>.

<b>IC<sub>50</sub> &amp; Target</b>	HCV <sup>[1]</sup>
<b>In Vitro</b>	NM107 (25 μM; 24 hours; Huh7-1 cells and cell culture-propagated HCV) treatment decreases extracellular viral titers and intracellular RNA levels. MCE has not independently confirmed the accuracy of these methods. They are for reference only. RT-PCR <sup>[2]</sup>
	Cell Line: Huh7-1 cells and cell culture-propagated HCV (HCVcc)
	Concentration: 25 μM
	Incubation Time: 24 hours
	Result: Extracellular virus titers declined in parallel with intracellular RNA levels.

## REFERENCES

[1]. Mathy JE, et al, Combinations of cyclophilin inhibitor NIM811 with hepatitis C Virus NS3-4A Protease or NS5B polymerase inhibitors enhance antiviral activity and suppress the emergence of resistance. *Antimicrob Agents Chemother.* 2008 Sep;52(9):3267-75.

[2]. Guedj J, et al. Modeling shows that the NS5A inhibitor daclatasvir has two modes of action and yields a shorter estimate of the hepatitis C virus half-life. *Proc Natl Acad Sci U S A.* 2013 Mar 5;110(10):3991-6.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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